## NESTING OF TANNY FROCMOUTHS

## By David Fbeay, b,sg.

The nesting efforts of the quaint Frogmontis in the Australian Section of the Zoological Gatdens are of musual interest, ${ }^{\text {for }}$ there appears to be no previous reched of these hidels brecding successfully under captive conditions. Ten years ago, late in the month of September, in my awn collection at Ballarat, a pair of exceptionally fame Froginguts sathered fine sticks and a few roots and manufactured a finsy nuts on a shelf in their enclosire. The female bird took to her crazy little structure immediately it was completen, lut muforturately shes laid me eggx. (heugh she continued to sit on the nest fot nearly two months, I was enailed to observe many new callis of the hirels during this period and it is sumprising what a valiety of notes they have. Beth bitds would spent some time at the nest afier nightiall and the iemale was in the Jabit of uttering a dunning contintous call, which is best likened to the unise of a distant motor cycle. With head bent forwand and booly swayng from site to site she wotad maintain this series of rapis sutuds sometimes for as long as a quarter of an hour. The maic hiscl occasionatly answered in similar fasion but his call was even more rapid. The ordinary call of the species se often hearel in the country by night was ptered very frequently by these birts at this time the male bird tisually "spoke" from the for end of the enclosure and the quiet but penctrating "oom-com-omm" was nttered perhaps ninetcent times beiore is ceased as mygterionsly as it hat begun and a short interval followed before the call began again

When flying tand the aviary at night they sometimes uttered a croaking growl, and during daylight another sound used as a means of connmmication was a serties of notes beginning loudly and rapidly and stiddenly dying down again. The birds had a danger signal sesenibing the soumf "Oo-00! oo-00!" uttered quickly and shatply, atul on the overhead appearance of a hawk the first bind to perceive the danyer would acquaint its mate in this fashion. Tmmediately both woukd "frceze" into the very wanderful "broken limh" attitude. By mimicking this sound it is possible to canse even the quictest and most tristing Frogmonth to adopt its protective attititde.

Cats, possimes and other furred visitors in the vicinity of the nest built by the birds were trated with samt ceremony. With fiercely ruffled head, great slaring cyes, extenderl wings and vigorous etaps of their large beaks the birds wonld attack these unwelcome intruters and drive them away. This brief account of the birds nesting so long ago is given because of the observation of intimate ways, nany mot possible in the case of the nore timid pair at present in the Znologicil Garclens.

On Seplember 5, 1935, the fenale lird in a large aviary in the

Australian section was discovered perched lengthwise on a wooden bean trear the gronnd. Her nest consisted of a small uprooted grass sod and a six-inch mail, and on this precarious support lay a singte egg Next day it rolled off and was broken ont the ground helow. On September 8 . twe hen Frogmouth had made another flimsy nest oi grass athel small twigs on the limh of a pepper Iree in the aviars: The site had been previously prepared tor her by micans of arranging a hollowed platiom of bark on the beugh. Twu eggs were laid on successive days, but again bad huck dogged the birf, for on September 23, both were broken on the ground below the uest. Once again. for the thited time, the persevering Frogmonith laid a cluteh of eggs and on November 10. two vung herds were hatched. Several Nankeen Kestrels inhabiting the npper patts of the aviare were inturdiately removed in case they stimid develop in taste tor the dainty lidte burds. However, the hoodoo remained, and when three days old bre lyaby Frogmouth iell to the yromind anc its fellow sulfered at simiar fate at the age of eight days.

Rather in tespair of stycess aftar this extraordinaty rmen ofi misforthise I surroumded the nesting site with a prominent ridge of bark, that was rather afraid that the structure would not he to the Fivgmouth's liking However, keen irterext was revivert on Noveribet 30 , when the hirk nade her fourth attemps. She haid her forst egg on this rlay and sat immediately. Another egg appeared the following day. For exactly four weekes the lirul continted to brool very closcly and at bo time was she relieved by her mate. On the twenty-eigith slay the fost voung liaril hatched, followed two days later by a second. The quatint "chicks" were solemu, tender little mites clothed in whire down, and the mother-bird, who bad been rather pugnacions and rehatant alont leaving the nes sven when broodirg on eggs, now beeame quite savage and one more than one occasion she flew at me and knocked ny hat flying. Her ratying expressions and glaring yellow cyes, rogether with the unpleasant snaps of her strong beak were well calculated to scare intruless awny fron the nest,

Naturally the diet of the parent hircts had been warfecl a good deal througiont tive nestang season. and now with the advent of fledgelings the block or "iecding dable" was spread each evening with a most appetizing atray of chopped mice and fiogs. finclyminced heef, meal worms, moths, and a shallow tray of earth worms, Not content with this alone the parene birds hunted Herough the aviary and several thones dead spiders which had missed the gaping mouths of the young birde were discovered entangled itt the slown of their breasts. One thick made little headway and it was missing from the nest a weele after the time of hatching. Apparently is but died and one of the parent birds swallowed it. The growth of the temaining fledgeing was slow

## Plate XXIV



Frogmmuth fedgehng if days old

"hoton. Dy I'. Flean.
Female Frogmouth defending her nest

